

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005456**Date Inspected:** 10-Feb-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Fabrication**Summary of Items Observed:**

CWI: Mr. Sun Wei, Mr. Gu Xin Zhan, Mr. Li Jia

On this date CALTRANS OSM Quality Assurance (QA) Inspector Mr. Paul Dawson arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

OBG Bay 6

This QA Inspector performed random ultrasonic (UT) inspections of approximately 10 percent length of OBG base plate welds BP183-001-001, BP183-001-002, BP075-001-001, BP075-001-002, BP102-001-019, BP102-001-021, BP048-001-001, BP048-001-019, BP048-001-021, BP129-001-001, BP129-001-027, BP129-001-029, BP129-001-023, BP129-001-025, BP129-001-019, BP129-001-021, BP156-001-019, BP156-001-021, BP073-001-003, BP073-001-023, BP073-001-025, BP075-001-019, BP075-001-021, BP075-001-027 and BP129-029. These welds had previously been ultrasonically inspected and accepted by ZPMC inspection personnel and are listed on ZPMC Notification of Witness Inspection document 001953. The QA Inspector observed the welds that were ultrasonically inspected by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

This QA Inspector performed random ultrasonic (UT) inspections of approximately 10 percent length of OBG side

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plate weld SP732-001-073. This weld had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the weld that was ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

OBG Bay 9

This QA Inspector observed ZPMC welder Mr. Xing Jie, stencil 59378 is using flux cored welding procedure WPS B-T-2232-TC-U5F to make stiffener to baseplate welds on OBG deck plate DP575-001-013. Prior to welding the QA Inspector observed the base material had previously been preheated using electrical heater elements. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

QA Inspector observed ZPMC welder Ms. Jiang Maofang, stencil 201250 is using welding procedure specification WPS-B-T-2233-B-U2-F to make flux cored closed rib splice weld DP220-001-194. Prior to welding the QA Inspector observed the groove area where Ms. Jiang Maofang has been cleaned to bright metal and fit together as specified by the welding procedure specification. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Hao Long, stencil 59446 is using welding procedure specification WPS-B-T-2342-U2 (U-rib) to make flux cored tack welds on OBG deck plate closed rib weld DP113-001. Prior to welding the QA Inspector observed the one worker was verifying zero gap in the weld groove between the closed rib and the baseplate prior to making each tack weld. Items observed by the QA Inspector appear to comply with project specifications.

This QA Inspector observed ZPMC is preparing to make repair #3 in several of the stiffener plate welds in deck plate DP600-001 and that ZPMC has ground off the repair #1(R1) and repair #2 (R2) markings. The QA Inspector informed CWI Mr. Gu Xin Zhau that the R1 and R2 marking have been removed and that this information is needed to maintain traceability of the repair cycles. See the photograph below for additional information.



Summary of Conversations:

See above.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
